UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,933	11/14/2003	Hong Yeon Kim	P69281US0	7425

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EXAMINER
CAMPOS, YAIMA

ART UNIT	PAPER NUMBER
2185	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/14/03*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All　b)☐ Some *　c)☐ None of:

　　　1.☒ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/14/03*.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

1.   The instant application having Application No. **10/706,933** has a total of 4 claims

pending in the application; there are 3 independent claims and 1 dependent claims, all of which

are ready for examination by the examiner.

I. INFORMATION CONCERNING OATH/DECLARATION

Oath/Declaration

2.   The applicant's oath/declaration has been reviewed by the examiner and is found to

conform to the requirements prescribed in **37 C.F.R. 1.63**.

II. STATUS OF CLAIMS FOR PRIORITY IN THE APPLICATION

3.   As required bye **M.P.E.P. 201.14(c)**, acknowledgement is made of applicant's claim for

priority based on an application filed on December 24, 2002 (Foreign Priority 2002-83164).

III. INFORMATION CONCERNING DRAWINGS

Drawings

4.   The applicant's drawings submitted are objected to.

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is

old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR

1.121(d) are required in reply to the Office action to avoid abandonment of the application. The

replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR

1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted

by the examiner, the applicant will be notified and informed of any required corrective action in

the next Office action. The objection to the drawings will not be held in abeyance.

Appropriate correction is required.

IV. ACKNOWLEDGEMENT OF REFERENCES CITED BY APPLICANT

As required by **M.P.E.P. 609(C)**, the applicant's submission of the Information

Disclosure Statement dated November 14, 2003 is acknowledged by the examiner and the cited

references have been considered in the examination of the claims now pending. As required by

M.P.E.P. 609 C(2), a copy of the PTOL-1449 initialed and dated by the examiner is attached to

the instant office action.

V. OBJECTIONS TO THE SPECIFICATION

Abstract Objections

5.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a
separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed
150 words in length since the space provided for the abstract on the computer tape used by the
printer is limited. The form and legal phraseology often used in patent claims, such as "means"
and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist
readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the
title. It should avoid using phrases which can be implied, such as, "The disclosure concerns,"
"The disclosure defined by this invention," "The disclosure describes," etc.

6.   The abstract of the disclosure is objected to because of the following informalities:

7.   The word "policy" (line 5) appears to refer to more than one "policy;" therefore; this

word should be "policies" and has been treated as such for the rest of this Office action.

8.   The word "procedure" (line 5) appears to refer to more than one "procedure;" therefore;

this word should be "procedures" and has been treated as such for the rest of this Office action\

9.   The abstract recites the limitation "multi-system" in line 2. This limitation renders the

abstract vague and indefinite as it is not clear what type of "multi-system" this limitation refers

to. The examiner interprets this limitation to read –a system **including multiple database**

management systems- and has been treated as such for the rest of this office action.

10.   Correction is required. See MPEP § 608.01(b).

Specification Objections

11.   The disclosure is objected to because of the following informalities:

    Page 1 of the specification is missing. Accordingly, applicant might consider

renumbering pages in the specification.

    The word "policy" (page 1, line 11) appears to refer to more than one "policy;" therefore;

this word should be "policies" and has been treated as such for the rest of this Office action.

    The statement "more improved performance," (page 2, line 14) appears to refer to

"improved performance" and has been treated as such for the rest of this office action.

    The statement "block of recent version" (page 3, line 10) appears to contain grammatical

errors. The examiner interprets this statement as "a most recent version of a block" and has been

treated as such for the rest of this office action.

    The statement "block cache of old version" (page 3, line 13) appears to contain

grammatical errors. The examiner interprets this statement as "older version of a block in cache"

and has been treated as such for the rest of this office action.

The statement "various information in a buffer is referred to" (page 9, line 13) appears to contain grammatical errors. It is believed this statement should read "various information in a buffer are referred to" and has been treated as such for the rest of this office action.

12.   35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are:

a.   The specification fails to explain criteria necessary for one "buffer locking mode" to be "less than," "greater than" or "enough" when compared with another "buffer locking mode."

b.   The specification fails to explain how a "buffer" can be "installed;" therefore, it is not clear to the examiner what Applicant refers to when reciting/claiming "buffer installation."

13.   The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

14.   The following title is suggested: -- **Buffer Allocation Method Supporting Detection-based and Avoidance-based Consistency Maintenance Policies in a Shared Disk-based Multi-database Management System** --.

15.   The specification contains similar types of deficiencies as those described above. It is incumbent upon Applicant to ensure any amendment addresses the additional deficiencies in the specification in addition to those specifically noted above.

16.   The examiner suggests that Applicant submit a substitute specification in proper

idiomatic English and in compliance with 37 CFR 1.52(a) and (b).

A substitute specification must not contain new matter. The substitute specification must

be submitted with markings showing all the changes relative to the immediate prior version of

the specification of record. The text of any added subject matter must be shown by underlining

the added text. The text of any deleted matter must be shown by strike-through except that

double brackets placed before and after the deleted characters may be used to show deletion of

five or fewer consecutive characters. The text of any deleted subject matter must be shown by

being placed within double brackets if strike-through cannot be easily perceived. An

accompanying clean version (without markings) and a statement that the substitute specification

contains no new matter must also be supplied. Numbering the paragraphs of the specification of

record is not considered a change that must be shown.

17.   Appropriate correction is required.

VI. <u>OBJECTIONS TO THE CLAIMS</u>

18.   <u>**Claims 1-3**</u> are objected to for the following informalities:

19.   Claim 1 recites the word "policy" in line 2. This word appears to refer to more than one

policy; therefore, Applicant might consider changing this word to read –**policies**-.

20.   Claim 1 recites the word "scheme" in line 2. This word appears to refer to more than one

scheme; therefore, Applicant might consider changing this word to read –**schemes**-.

21.   Claim 1 recites the limitation "that an the obtained" in line 10. This limitation appears to

be a typographical error. Applicant might consider changing this limitation to read –that the

obtained-.

22.   Claim 3 recites the limitation "update the lock authority, the system being determined not

be compatible." This limitation appears to refer to –uptate the lock authority if the system is

determined not be compatible-. Applicant might consider correcting this limitation.

23.   Any claim not specifically addressed above, is being objected to as encompassing the

deficiencies of a claim upon which it depends.

24.   Appropriate correction is required.

VII. REJECTIONS NOT BASED ON PRIOR ART

a. DEFICIENCIES IN THE CLAIMED SUBJECT MATTER

Claim Rejections - 35 USC § 112

25.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

26.   **Claims 1-4** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the enablement requirement. The claim(s) contains subject matter which was not described in

the specification in such a way as to enable one skilled in the art to which it pertains, or with

which it is most nearly connected, to make and/or use the invention

27.   As per **claim 1**, claim 1 recites the limitation "buffer installation" in line 3 and "a buffer

is requested to install" in line 7. The specification fails to explain how a buffer can be installed;

therefore, it is not clear to the examiner how a "buffer" can be "installed." As best understood by

the examiner, these limitations refer to **-buffer allocation-** and **–a buffer allocation is**

requested- and have been treated as such for the rest of this office action.

<u>Claim 1</u> recites the limitation "required version" in line 11. The specification fails to

explain this term; therefore, it is not clear to the examiner what is a "required version" for a

buffer. As best understood by the examiner, this limitation refers to **–an older version of a**

buffer being lower than an updated version of a buffer- and has been treated as such for the

rest of this office action.

<u>Claim 1</u> also recites the limitation "the obtained buffer locking mode is less than

the calculated buffer locking mode" in lines 7-8. The specification fails to explain criteria

necessary for one "buffer locking mode" to be "less than," "greater than" or "enough" when

compared with another "buffer locking mode;" therefore, it is not clear to the examiner what this

limitation refers to. As best understood by the examiner, this limitation refers to **–an exclusive**

usage mode being greater than a shared usage mode- and has been treated as such for the rest

of this office action.

28.   As per <u>claim 2</u>, claim 2 recites the limitation "install the buffer" in lines 20 and 22. The

specification fails to explain how a buffer can be installed; therefore, it is not clear to the

examiner how a "buffer" can be "installed." As best understood by the examiner, these

limitations refer to **–allocate the buffer-** and have been treated as such for the rest of this office

action.

29.   As per <u>claim 3</u>, claim 3 recites the limitation "transferring a corresponding block" in line

4. The specification fails to explain how a block can be transferred; therefore, it is not clear to the

examiner how a "block" can be "transferred." As best understood by the examiner, this limitation

should read –**allocating a corresponding block**- and has been treated as such for the rest of this

office action.

30.   As per **claim 4**, claim 4 recites the limitations "block transfer" in line 13 and

"transferring the corresponding block" in lines 17-18. The specification fails to explain how a

block can be transferred; therefore, it is not clear to the examiner how a "block" can be

"transferred." As best understood by the examiner, these limitations should read –**block**

allocation- and –**allocating the corresponding block**- and has been treated as such for the rest

of this office action.

31.   Any claim not specifically addressed above, is being rejected as encompassing the

deficiencies of a claim upon which it depends.

b. DEFICIENCIES IN THE SPECIFICATION

Claim Rejections - 35 USC § 112

32.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

33.   **Claims 1-4** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

34.   As per **claim 1**, claim 1 recites the limitation "matrix (SMTBM)" in line 8. This

limitation renders the claim vague and indefinite because the claim language does not define the

limitation. Applicant might consider defining this term in the claim language, labeling "matrix

SMTBM," and explaining the meaning of each of the entries in "matrix (SMTBM)."

Claim 1 recites the limitation "the obtained buffer locking mode" in line 10. There is insufficient antecedent basis for this limitation in the claim.

35.   As per **claim 3**, claim 3 recites the limitation "matrix (BLCM)" in line 7. This limitation renders the claim vague and indefinite because the claim language does not define the limitation. Applicant might consider defining this term in the claim language, labeling "matrix BLCM," and explaining the meaning of each of the entries in "matrix (BLCM)."

Claim 3 recites the limitations "(WX, X)" in line 3 and "(WS, S)" in line 8. These limitations render the claim vague and indefinite because the claim language does not define the limitations. Applicant might consider defining these terms in the claim language.

Claim 3 recites the limitation "multi-system" in line 2. This limitation renders the claim vague and indefinite because it fails to point out what is included/excluded by the claim language; it is not clear what type of "multi-system" this limitation refers to. The examiner interprets this limitation to read –a system including **multiple database management systems**– and has been treated as such for the rest of this office action.

36.   As per **claim 4**, claim 4 recites the limitation "matrix (BLRM)" in line 20. This limitation renders the claim vague and indefinite because the claim language does not define the limitation. Applicant might consider defining this term in the claim language, labeling "matrix BLRM," and explaining the meaning of each of the entries in "matrix (BLRM)."

Claim 4 recites the limitations "(WX, X)" in line 15. This limitation renders the claim vague and indefinite because the claim language does not define the limitation. Applicant might consider defining this term in the claim language.

Claim 4 recites the limitation "multi-system" in line 14. This limitation renders the claim

vague and indefinite because it fails to point out what is included/excluded by the claim

language; it is not clear what type of "multi-system" this limitation refers to. The examiner

interprets this limitation to read –a system including multiple database management systems–

and has been treated as such for the rest of this office action.

37.   Any claim not specifically addressed above, is being rejected as encompassing the

deficiencies of a claim upon which it depends.

VIII. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 102

38.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

39.   **Claims 1-4** are rejected under 35 U.S.C. 102(b) as being anticipated by Mohan et al. (US

5,551,046).

40.   As per **claim 1**, Mohan discloses "A buffer installation method supporting a detection-

based and avoidance-based consistency maintenance policy in a shared disk-based multi-

DBMS," as ["**the method of the invention is for locking data resources in a shared data

system including multiple database management systems connected to one or more data

storage devices and to a global lock manager, the global lock manager receiving and

granting requests for locks**" (Column 2, lines 33-37). Mohan teaches an equivalence to

detection-based consistency policy as the use of "L locks" which are "acquired for intra-

and inter- system isolation and serialization of transaction access to a resource" (Column 8,

lines 54-56), discloses the use of "signaling to other potential using systems that a particular

cache location contains a version of a data resource which is more current than that in the

shared data storage resource (DASD)" (Column 7, lines 18-21) wherein "the cache

manager's lock conflict routine would transfer only that version of the page which has

committed updates" (Column 13, lines 44-46) and also discloses an equivalence to

avoidance-based consistency policy as the use of "P locks" which are "acquired to ensure

cache consistency between systems" (Column 8, lines 53-54)]

"the method comprising the steps of: when a page identifier, access modes (read, write) and

consistency maintenance scheme (detection, avoidance) are selected and a buffer is requested to

install, calculating a buffer locking mode required" based on a following matrix (SMTBM);"

[With respect to this limitation, Mohan discloses "The lock request may be in a mode which

is appropriate to the use to which the transaction will put the requested data resource" and

"if the transaction intends to alter or update the data resource, coherency requires that it

have exclusive access while updating. Thus, its lock request will be submitted in the X-

mode. If exclusive access is not required for transaction processing, the lock may be

requested in a shared mode" (Column 4, lines 33-38) and also explains that "when a lock

request is received, the request identifies the name of the data source, the type of lock, and

the mode necessary to effect the operation of the requesting process" (Column 6, lines 12-

15)]

"and requesting a global locking manager to lock a buffer in the calculated buffer locking mode

in case that an the obtained buffer locking mode is less than the calculated buffer locking mode

or a version of a loaded block is lower than a required version when detection-based consistency

maintenance scheme is selected, and approving buffer installation otherwise," **[With respect to**

this limitation, Mohan discloses that "Compatibility rules for S and X-mode locks are as

follows: If a lock is held in S mode and an S mode is subsequently requested by another

transaction, the subsequent request is compatible; if an S mode is requested and an X-

mode lock is held, the subsequent request is incompatible and the requesting transaction

will be placed in a wait state until the holder unlocks the data resource by surrendering or

downgrading its lock. When a lock is held, a subsequent request for an X-mode lock is

considered incompatible, no matter what the mode of the held lock is" (Column 8, lines 17-

27) and also explains that "The invention permits a local lock manager to grant an L lock

on a page locally if the resultant mode of L and P locks held on the page is greater than the

requested mode according to the magnitude relationship given above. The same is the case

when the P lock is requested" (Column 10, lines 39-44)]

"wherein a detection-based consistency maintenance scheme and an avoidance-based

consistency maintenance scheme are integrated in a single procedure to interwork with each

other" **[Mohan further explains the usage of "L and P locks" at the same time to maintain**

consistency of data as "the ownership distinction between L and P locks is important only

for the local lock manager; the global lock manager is interested in lock ownership only at

the local lock management level" (Column 10, lines 18-22), explains that "if an L lock

request is received for a page which is not cached, the local lock manager can request an

LP lock from the global locking manager, anticipating that a P lock request will follow

from its own cache manager" (Column 10, lines 22-25); and further discloses that "a local

lock manager can suppress the unlock call of an L (or a P) lock to the global lock manager

if the P (or the L) lock is still held in the same or higher lock mode. This saves the lock and

unlock calls from a local lock manager to the global lock manager, thereby saving messages

between them" (Column 7, lines 43-48)].

41.   As per **claim 2**, Mohan discloses "the method as claimed in claim 1" [See **rejection to**

claim 1 above] "wherein when succeeding to receive a block in state that the buffer is requested

to lock approving to install the buffer;" [**With respect to this limitation, Mohan discloses that**

when a lock request is received, "a local lock manager can grant an L or P lock on a data

resource locally if the combined lock mode of the L and P locks held on the same data

resource is equal to or higher than the requested mode" (Column 7, lines 39-43) wherein "if

the modes are compatible, the lock is granted and the requestor is put in the holding

queue" (Column 6, lines 24-26)]

"and when failing to receive a block, reading the block from a disk to approve to

install the buffer" [**With respect to this limitation, Mohan discloses that when a lock is**

requested "if the requests are incompatible, the requestor is queued in the requesting

queue" (Column 6, lines 26-27)].

42.   As per **claim 3**, Mohan discloses "a method of processing a global locking request in a

DBMS operated in a shared disk-based multi-system," as [**"the method of the invention is for**

locking data resources in a shared data system including multiple database management

systems connected to one or more data storage devices and to a global lock manager, the

global lock manager receiving and granting requests for locks" (Column 2, lines 33-37)]

"the method comprising the steps of: obtaining a locking by an update authority (WX, X) in a

system that has obtained a requested locking, transferring a corresponding block to a system that

cached the corresponding block, and requesting to update a lock authority;" [With respect to

this limitation, Mohan discloses that "A transaction obtains ownership of a data resource

by way of a logical (L) lock. Hereinafter, it is assumed that the data resource is a page in a

database" (Column 8, lines 3-5) and further explains that "The resultant mode of the L and

P locks is determined by the lock modes in which they are held by the transactions and the

cache manager of the "owning" DBMS" (Column 10, lines 30-33)]

"determining whether the system is not compatible to a requested lock according

to a following matrix (BLCM) in the system that has obtained the requested lock in a read mode

(WS, S);" [With respect to this limitation, Mohan discloses that "locks are granted at least

in a first mode (X-mode) denoting update of a data resource, or in a second mode (S-mode)

denoting reading of the data resource" (Table 1 and Column 2, lines 54-56) and also

teaches that "If a lock is held in S mode and an S mode is subsequently requested by

another transaction, the subsequent request is compatible; if an S mode is requested and an

X-mode lock is held, the subsequent request is incompatible and the requesting transaction

will be placed in a wait state until the holder unlocks the data resource by surrendering or

downgrading its lock" (Column 8, lines 19-24)]

"and instructing a system to update the lock authority, the system being determined not to be

compatible" [With respect to this limitation, Mohan discloses that "Assuming that the

requested mode is incompatible with the previously-granted L lock, the local lock manager

queues the requesting transaction in the R field of the L lock table entry and the

transaction waits at 133 until the data resource is unlocked by the owning transaction"

(Figure 4 and Column 11, lines 38-43)].

43.   As per **claim 4**, Mohan discloses "a method of a global locking manager for processing a

locking authority update request and a block transfer request in a DBMS operated in a shared

disk-based multi-system," ["**the method of the invention is for locking data resources in a**

shared data system including multiple database management systems connected to one or

more data storage devices and to a global lock manager, the global lock manager receiving

and granting requests for locks" (Column 2, lines 33-37)]

"the method comprising the steps of: when a current system has obtained a locking by an update

authority (WX, X) and a current block is updated, writing a log forcedly about the current block

based on write ahead logging (WAL) and writing a corresponding block on a disk or transferring

the corresponding block through a transfer path;" [**With respect to this limitation, Mohan**

discloses that "Each lock manager maintains a lock table. FIG. 3 illustrates a global lock

manager lock table 70 and local lock manager tables 80 and 81 for local lock managers 46

and 47, respectively. Each lock table includes multi-field entries which assist the owning

lock manager in processing, maintaining, and releasing locks. The global lock table 70

contains entries for LP locks, one such entry being indicated by 72. Each global lock entry

includes a Name field which identifies the data resource to which the lock applies" (Figure

3 and Column 5, lines 40-48)]

"updating a currently owned buffer locking mode to satisfy a buffer locking mode requested by a remote system using a following matrix (BLRM)," **[With respect to this limitation, Mohan discloses that "Assuming that the requested mode for the P lock is greater than the resultant mode tested at 220; a new resultant mode is computed which includes the requested lock mode, the RESP GLM field of the P lock entry in the local lock table is marked at 224, and an updating of the LP lock mode is effected" (Column 12, lines 46-51)]** "and removing a corresponding block completely when returning a buffer locking and completing to update an ownership otherwise" **[With respect to this limitation, Mohan discloses that "a lock manager employs unlocking procedures to de-queue holders of locks when the holders request unlocking. When an unlock request is processed, the lock manager will then consult the requesting queue to determine whether any waiting requests can be serviced based on other holders, if any" (Column 7, lines 49-57)]**.

IX. RELEVANT ART CITED BY THE EXAMINER

44.   The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.05(c)**.

45.   The following references teach shared memory allocation/deallocation methods.

U.S. PATENT NUMBER

US 5,537,574

US 5,596,754

US 5,918,229

US 5,875,468

US 5,737,536

US 6,826,570

US 6,463,503

X. CLOSING COMMENTS

Conclusion

a. STATUS OF CLAIMS IN THE APPLICATION

46.   The following is a summary of the treatment and status of all claims in the application as

recommended by M.P.E.P. 707.07(i):

a(1) CLAIMS REJECTED IN THE APPLICATION

47.   Per the instant office action, **claims 1-4** have received a first action on the merits and are

subject of a first action non-final.

b. DIRECTION OF FUTURE CORRESPONDENCES

48.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Yaima Campos whose telephone number is (571) 272-1232 and

email address is Yaima.Campos@uspto.gov. The examiner can normally be reached on Monday
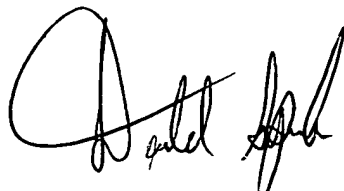
to Friday 8:30 AM to 5:00 PM.

IMPORTANT NOTE

49.   If attempts to reach the above noted Examiner by telephone or email are unsuccessful, the

Examiner's supervisor, Mr. Donald Sparks, can be reached at the following telephone number:

Area Code (571) 272-4201.

The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300. Information regarding the status of an application may be obtained

from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For more

information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions

on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

January 4, 2006

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